

9-7-12

# LCD Least Common Denominator

- "Unlike" Fractions have different denominators
- To add or subtract fractions, the denominators must be the same ("like" fractions)
- Find the LCD to change "unlike" fractions to "like" fractions

## STEPS:

① Find the LCM of the unlike denominators

Ex:

$$\begin{array}{r} \frac{1}{2} = \frac{\quad}{6} \\ + \frac{1}{3} = \frac{\quad}{6} \end{array}$$

② To find the numerator, do what you did to the denominator (multiply by the same #)

Ex:

$$\begin{array}{r} \frac{1 \times 3}{2 \times 3} = \frac{3}{6} \\ + \frac{1 \times 2}{3 \times 2} = \frac{2}{6} \end{array}$$

Ex:

$$\begin{array}{r} \frac{3 \times 3}{4 \times 3} = \frac{9}{12} \\ + \frac{5 \times 2}{6 \times 2} = \frac{10}{12} \end{array}$$

Ex:

$$\begin{array}{r} \frac{4 \times 3}{5 \times 3} = \frac{12}{15} \\ + \frac{2 \times 2}{3 \times 5} = \frac{10}{15} \end{array}$$

Ex:

$$\begin{array}{r} \frac{3}{10} = \frac{6}{20} \\ + \frac{3}{4} = \frac{15}{20} \end{array}$$

# ADD & SUBTRACT UNLIKE FRACTIONS

STEPS:

① Find the LCD & change the fractions to "like" fractions

② Add or subtract the numeators.  
Denominator stays the same.

③ Simplify

$$\begin{array}{r} \text{EX:} \quad \frac{3 \times 3}{5 \times 3} \quad \frac{9}{15} \\ + \quad \frac{2 \times 3}{3 \times 5} \quad \frac{10}{15} \\ \hline \frac{19}{15} = 1 \frac{4}{15} \end{array}$$

$$\begin{array}{r} \text{EX:} \quad \frac{5}{6} = \frac{5}{6} \\ - \quad \frac{2}{3} = \frac{4}{6} \\ \hline \frac{1}{6} \end{array}$$